

ABSTRACT

A method for forming a semi-conductor material is provided that comprises forming a donor substrate constructed of GaAs, providing a receiver substrate, implanting nitrogen into the donor substrate to form an implanted layer comprising GaAs and nitrogen. The implanted layer is bonded to the receiver substrate and annealed to form GaAsN and nitrogen micro-blisters in the implanted layer. The micro-blisters allow the implanted layer to be cleaved from the donor substrate.